Kingbright®

T-1 3/4 (5mm) INFRA-RED EMITTING DIODE

L53F3BT

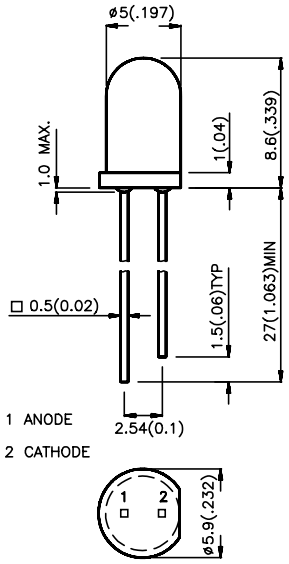
Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE L51P3C PHOTOTRANSISTOR.
- BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

Package Dimensions

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mW/sr) @20mA		Iv (mW/sr) @50mA		Viewing Angle
			Min.	Typ.	Min.	Typ.	2θ1/2
L53F3BT	GaAs	Blue Transparent	5	20	8	30	30°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

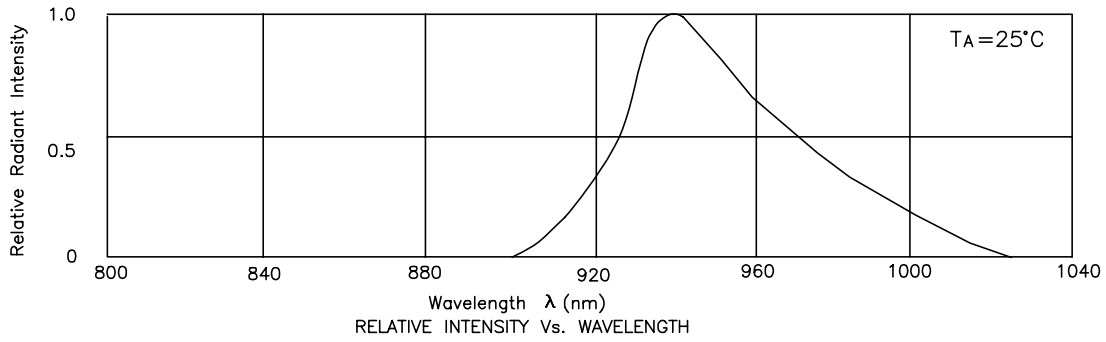
Electrical / Optical Characteristics at T_A=25°C

Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	F3	VF	1.2	1.5	V	IF=20mA
Reverse Current	F3	IR	-	10	uA	VR=5V
Junction Capacitance	F3	Co	90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	F3	IR	940	-	nm	IF=20mA
Spectral Bandwidth	F3	$\Delta\lambda$	50	-	nm	IF=20mA

Absolute Maximum Ratings at T_A=25°C

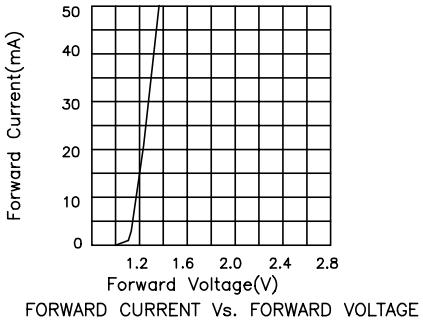
Item	Symbol	Maximum Rating	Units
Power Dissipation	Pd	100	mW
Forward Current	IF	50	mA
Peak Forward Current	I_P	1.2	A
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-45~ +80	°C
Storage Temperature	Tstg	-45~ +80	°C

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.

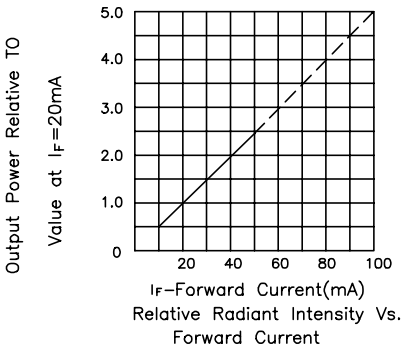


RELATIVE INTENSITY Vs. WAVELENGTH

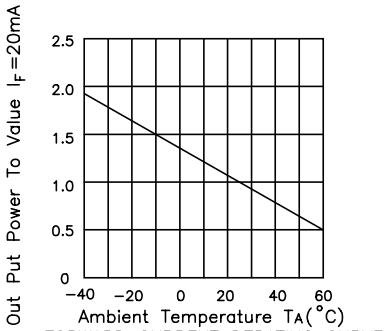
L53F3BT



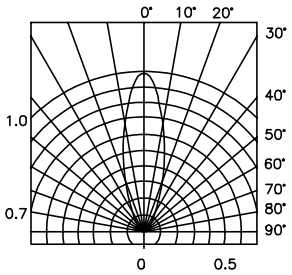
FORWARD CURRENT Vs. FORWARD VOLTAGE



Relative Radiant Intensity Vs. Forward Current



FORWARD CURRENT DERATING CURVE



SPATIAL DISTRIBUTION